

WE CLAIM:

1. A method for producing a vehicle body, the method comprising:
fabricating an underbody having one or more underbody bolting flanges
5 attached thereto, with each underbody bolting flange being adapted for bolted attachment
to a mating bodyside bolting flange;
fabricating a bodyside including a supplemental bodyside support structure
having attached thereto one or more bodyside bolting flanges, with each bodyside bolting
flange being adapted for bolted attachment to one of the underbody bolting flanges;
10 attaching the underbody to the bodyside; and
bolting the one or more underbody bolting flanges to a mating bodyside
bolting flange.
2. The method of claim 1, further comprising attaching the underbody to the
15 bodyside by welding the bodyside to the underbody.
3. The method of claim 2, further comprising painting the vehicle body prior
to bolting the one or more underbody bolting flanges to a mating bodyside bolting flange.
- 20 4. The method of claim 2, further comprising painting the vehicle body after
bolting the one or more underbody bolting flanges to a mating bodyside bolting flange.

5. The method of claim 1, further comprising:
fabricating the vehicle body to include a front and a rear end thereof and,
and to define a vertically oriented central plane extending longitudinally along the vehicle
5 body from the front to the rear ends thereof, and to further define one or more offset
planes extending parallel to the central plane; and
adapting the underbody bolting flanges and the bodyside bolting flanges
for mating with one another along one or more of the one or more offset planes.
- 10 6. The method of claim 1, further comprising:
fabricating a bodyside subassembly; and
joining the supplemental bodyside support structure to the bodyside
subassembly to form the bodyside.
- 15 7. The method of claim 6, further comprising, fabricating the supplemental
bodyside support structure to include tabs extending therefrom and attaching the
supplemental bodyside support structure to the bodyside subassembly by spot welding the
tabs extending from the bodyside support structure to the bodyside subassembly.
- 20 8. The method of claim 6 further comprising:
fabricating the bodyside subassembly to include a sill joining a forward
standing pillar to an aft standing pillar, the forward and aft standing pillars both extending
upward from the sill, and a quarter panel extending from the aft pillar toward the rear end
of the vehicle body; and
25 fabricating the supplemental bodyside support structure to include a
supplemental sill member joining a forward supplemental pillar member to an aft
supplemental pillar member, the forward and aft supplemental pillar members extending
upward from the supplemental sill member, and a quarter panel supplemental support
member extending along the quarter panel from the aft supplemental pillar member of the
30 supplemental bodyside support structure toward the rear end of the vehicle body.

9. The method of claim 6, further comprising:
fabricating the bodyside subassembly to include a sill joining a hinge pillar to a B-pillar, an A-pillar extending upward from the hinge pillar, and a quarter panel
5 defining a beltline extending from the B-pillar to a D-pillar area defined by the quarter panel; and
fabricating the supplemental bodyside support structure to include a sill member joining a hinge pillar member to a B-pillar member, a A-pillar member extending upward from the hinge pillar member, and a quarter panel member extending
10 along the beltline from the B-pillar member of the supplemental bodyside support structure to the D-pillar area.
10. The method of claim 1, further comprising fabricating the underbody to include one or more supplemental underbody crossmembers each having an underbody
15 bolting flange attached thereto.
11. The method of claim 10, further comprising fabricating each supplemental bodyside crossmember to include tabs extending therefrom and attaching the supplemental crossmember to the underbody by spot welding the tabs extending from the
20 supplemental crossmember to the underbody.
12. The method of claim 10 wherein the underbody defines a transverse axis extending transversely across the underbody, and the method further comprises:
forming one or more of the one or more supplemental crossmembers from
25 a straight length of material; and
attaching the supplemental crossmember to the underbody with the supplemental crossmember aligned with the transverse axis extending transversely across the underbody.

13. The method of claim 10, further comprising, fabricating the underbody to include a dash subassembly, a kick-up subassembly, and a rear seat bulkhead subassembly, and providing a dash supplemental crossmember attached to the dash subassembly, a kick-up supplemental cross member attached to the kick-up subassembly, and a rear seat bulkhead supplemental crossmember attached to the rear seat bulkhead.

14. A vehicle body, comprising:
an underbody having one or more underbody bolting flanges attached thereto, with each underbody bolting flange being adapted for bolted attachment to a mating bodyside bolting flange; and
a bodyside attached to the underbody, the bodyside including a supplemental bodyside support structure having attached thereto one or more bodyside bolting flanges, with each bodyside bolting flange being adapted for bolted attachment to one of the underbody bolting flanges.

15. The vehicle body claim 14, further comprising one or more bolts attaching each of the underbody bolting flanges to a mating bodyside bolting flange.

16. The vehicle body of claim 14, wherein:
the vehicle body includes a front and a rear end thereof and defines a vertically oriented central plane extending longitudinally along the body from the front to the rear ends thereof, and one or more offset planes extending parallel to the central plane; and
the underside bolting flanges and the bodyside bolting flanges are adapted for mating with one another along one or more of the one or more offset planes.

17. The vehicle body of claim 14 wherein:
the bodyside includes a bodyside subassembly; and
the supplemental bodyside support structure includes tabs extending
5 therefrom for attaching the supplemental bodyside support structure to the bodyside
subassembly.

18. The method of claim 14 wherein:
the bodyside includes a bodyside subassembly comprising a sill joining a
10 forward standing pillar to an aft standing pillar, the forward and aft standing pillars both
extending upward from the sill, and a quarter panel extending from the aft pillar toward
the rear end of the vehicle body; and
the supplemental bodyside support structure includes a supplemental sill
member joining a forward supplemental pillar member to an aft supplemental pillar
15 member, the forward and aft supplemental pillar members extending upward from the
supplemental sill member, and a quarter panel supplemental support member extending
along the quarter panel from the aft supplemental pillar member of the supplemental
bodyside support structure toward the rear end of the vehicle body.

20 19. The vehicle body of claim 14 wherein:
the bodyside includes a bodyside subassembly comprising a sill joining a
hinge pillar to a B-pillar, an A-pillar extending upward from the hinge pillar, and a
quarter panel defining a beltline extending from the B-pillar to a D-pillar area defined by
the quarter panel; and
25 the supplemental bodyside support structure includes a sill member joining
a hinge pillar member to a B-pillar member, a A-pillar member extending upward from
the hinge pillar member, and a quarter panel member extending along the beltline from
the B-pillar member of the supplemental bodyside support structure to the D-pillar area.

20. The vehicle body of claim 14 wherein the underbody includes one or more supplemental underbody crossmembers each having an underbody bolting flange attached thereto.

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21. The vehicle body of claim 20 wherein the supplemental bodyside crossmember includes tabs extending therefrom for attaching the supplemental crossmember to the underbody.

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22. The vehicle body of claim 20 wherein:

the underbody defines a transverse axis extending transversely across the underbody, and the method further comprises:

one or more of the one or more supplemental crossmembers is formed from a straight length of material; and

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the supplemental crossmember is attached to the underbody with the supplemental crossmember aligned with a transverse axis extending transversely across the underbody.

23. The method of claim 20 wherein the underbody includes a dash subassembly, a kick-up subassembly, and a rear seat bulkhead subassembly, a dash supplemental crossmember attached to the dash subassembly, a kick-up supplemental cross member attached to the kick-up subassembly, and a rear seat bulkhead supplemental crossmember attached to the rear seat bulkhead.

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24. A method for reinforcing a vehicle body having a bodyside subassembly joined to an underbody, the method comprising:

5 attaching one or more underbody bolting flanges to the underbody prior to joining the bodyside subassembly to the underbody; and

10 attaching a supplemental bodyside support structure to the bodyside subassembly prior to joining the bodyside subassembly to the underbody, the supplemental bodyside support structure having one or more bodyside bolting flanges with each bodyside bolting flange being adapted for bolted attachment to one of the underbody bolting flanges.

25. The method of claim 24, further comprising bolting the mating underbody and bodyside bolting flanges together after the bodyside subassembly is joined to the underbody.

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26. The method of claim 24, further comprising attaching one or more supplemental support crossmembers including the underbody bolting flanges to the underbody prior to joining the bodyside subassembly to the underbody.